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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,997	06/30/2000	Anand Rangarajan	10559-229001	1490

20985 7590 02/09/2007
FISH & RICHARDSON, PC
P.O. BOX 1022
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EXAMINER	
HO, CHUONG T	
ART UNIT	**PAPER NUMBER**
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/608,997	Applicant(s) RANGARAJAN ET AL.
	Examiner CHUONG T. HO	Art Unit 2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 10 November 2006.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-10,12-18,20,22-24,26 and 28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-10,12-18,20,22-24,26,28 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The amendment filed 11/10/06 have been entered and made of record.

2. Applicant's arguments with respect to claims 1-10, 12-18, 20, 22-24, 26, 28 have been considered but are moot in view of the new ground(s) of rejection.

3. Claims 1-10, 12-18, 20, 22-24, 26, 28 are pending.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 6-10, 12-14, 18, 20, 24, 26, 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Putzolu et al. (U.S.Patent 6,868,086 B1).

In the claim 1, Putzolu et al. discloses a first component (figure 1, forward element 27, forwarding element 27 attaches a data-layer header identifying the VLAN for the egress port and then retransmits the packet via port 21) configured to perform a route look-up to identify a proxy egress port by which a data packet is to leave the first component (see col. 3, lines 25-30, the control module 50 regularly transmits updated versions of the network-layer routing table to each forwarding element 24-27, which store the table in an internal storage device 52. From the routing table 48 and the network-layer packet destination, the forwarding elements 24-27 can determine the next-hop subnetworks A, B, C for received data packets);

To send an Address Resolution Protocol (ARP) request (see col. 4, lines 25-30, To determine the data-layer destination address of a packet, the forwarding element for a data packet's ingress port sends an address resolution protocol (ARP) request. The ARP packet is broadcasted over the VLAN appropriate to the data packet's next-hop subnetwork destination and received by the egress port connected to the next-hop subnetwork);

To label the data packet with information identifying the hardware address of the egress port (figure 2, col. 2, lines 57-58, forwarding element 27 attaches a data-layer header identifying the VLAN for the egress port 15 and then retransmits the packet via the port 18) (see col. 3, lines 25-30, network – layer routing table);

A second component (figure 1, forwarding element 25) comprising the egress port (figure 1, 15); configured to receive the data packet (see col. 4, lines 30-32, the egress port removes the VLAN tag and broadcasts the ARP packet to the external subnetwork to which the port connects); and

An intermediate component (figure 1, forwarding element 26) bridging the first component (figure 1, forwarding element 25) and the second component (figure 1, forwarding element 27) to forward the data packet based on the hardware address of the egress port (see col. 2, lines 58-65, forwarding element 25 attaches a data-layer header identifying the VLAN for the egress port 15 and then retransmits the packet via port 18. Forwarding element 26 receives the packet and retransmits the packet only to the port 20 in response to reading the tag for the VLAN corresponding to the external port 15. Forwarding element 27 receives the packet and retransmits the packet only via

the port 15 in response to reading the tag for the VLAN corresponding to the port 15) (see col. 3, lines 25-30, the control module 50 regularly transmits updated versions of the network-layer routing table to each forwarding element 24-27, which store the table in an internal storage device 52. From the routing table 48 and the network-layer packet destination, the forwarding elements 24-27 can determine the next-hop subnetworks A, B, C for received data packets);

to send an Address Resolution Protocol (ARP) request for a hardware address (see figure 1, data-layer address) of an egress port by which the data packet is to leave a networking router architecture to reach the receiver (53) , to receive a response to the ARP request that includes the hardware address (data-layer address) of the egress port (figure 1, egress ports 12, 13) (see col. 4, lines 35-43, Each host on the net-hop subnetwork receives the ARP packet. The ARP packet indicates a network-layer destination address for which a data-layer address (MAC address) is requested and a data-layer address of the originator of the ARP request. Each host determines whether its own network-level address matches the address provided by the ARP packet. If a host detects a match, the host sends a directed response message back to the ARP originator of the ARP request. The response message identifies the data-layer address of the responding host device).

6. In the claim 12, Putzolu et al. discloses a first component (figure 1, forward element 27, forwarding element 27 attaches a data-layer header identifying the VLAN for the egress port and then retransmits the packet via port 21) configured to perform a route look-up to identify a proxy egress port by which a data packet is to leave the first

component (see col. 3, lines 25-30, the control module 50 regularly transmits updated versions of the network-layer routing table to each forwarding element 24-27, which store the table in an internal storage device 52. From the routing table 48 and the network-layer packet destination, the forwarding elements 24-27 can determine the next-hop subnetworks A, B, C for received data packets);

To send an Address Resolution Protocol (ARP) request (see col. 4, lines 25-30, To determine the data-layer destination address of a packet, the forwarding element for a data packet's ingress port sends an address resolution protocol (ARP) request. The ARP packet is broadcasted over the VLAN appropriate to the data packet's next-hop subnetwork destination and received by the egress port connected to the next-hop subnetwork);

To label the data packet with information identifying the hardware address of the egress port (figure 2, col. 2, lines 57-58, forwarding element 27 attaches a data-layer header identifying the VLAN for the egress port 15 and then retransmits the packet via the port 18) (see col. 3, lines 25-30, network – layer routing table);

A second component (figure 1, forwarding element 25) comprising the egress port (figure 1, 15); configured to receive the data packet (see col. 4, lines 30-32, the egress port removes the VLAN tag and broadcasts the ARP packet to the external subnetwork to which the port connects); and

An intermediate component (figure 1, forwarding element 26) bridging the first component (figure 1, forwarding element 25) and the second component (figure 1, forwarding element 27) to forward the data packet based on the hardware address of

the egress port (see col. 2, lines 58-65, forwarding element 25 attaches a data-layer header identifying the VLAN for the egress port 15 and then retransmits the packet via port 18. Forwarding element 26 receives the packet and retransmits the packet only to the port 20 in response to reading the tag for the VLAN corresponding to the external port 15. Forwarding element 27 receives the packet and retransmits the packet only via the port 15 in response to reading the tag for the VLAN corresponding to the port 15) (see col. 3, lines 25-30, the control module 50 regularly transmits updated versions of the network-layer routing table to each forwarding element 24-27, which store the table in an internal storage device 52. From the routing table 48 and the network-layer packet destination, the forwarding elements 24-27 can determine the next-hop subnetworks A, B, C for received data packets);

to send an Address Resolution Protocol (ARP) request for a hardware address (see figure 1, data-layer address) of an egress port by which the data packet is to leave a networking router architecture to reach the receiver (53) , to receive a response to the ARP request that includes the hardware address (data-layer address) of the egress port (figure 1, egress ports 12, 13) (see col. 4, lines 35-43, Each host on the net-hop subnetwork receives the ARP packet. The ARP packet indicates a network-layer destination address for which a data-layer address (MAC address) is requested and a data-layer address of the originator of the ARP request. Each host determines whether its own network-level address matches the address provided by the ARP packet. If a host detects a match, the host sends a directed response message back to the ARP

originator of the ARP request. The response message identifies the data-layer address of the responding host device).

7. In the claim 18, Putzolu et al. discloses a first component (figure 1, forward element 27, forwarding element 27 attaches a data-layer header identifying the VLAN for the egress port and then retransmits the packet via port 21) configured to perform a route look-up to identify a proxy egress port by which a data packet is to leave the first component (see col. 3, lines 25-30, the control module 50 regularly transmits updated versions of the network-layer routing table to each forwarding element 24-27, which store the table in an internal storage device 52. From the routing table 48 and the network-layer packet destination, the forwarding elements 24-27 can determine the next-hop subnetworks A, B, C for received data packets);

To send an Address Resolution Protocol (ARP) request (see col. 4, lines 25-30, To determine the data-layer destination address of a packet, the forwarding element for a data packet's ingress port sends an address resolution protocol (ARP) request. The ARP packet is broadcasted over the VLAN appropriate to the data packet's next-hop subnetwork destination and received by the egress port connected to the next-hop subnetwork);

To label the data packet with information identifying the hardware address of the egress port (figure 2, col. 2, lines 57-58, forwarding element 27 attaches a data-layer header identifying the VLAN for the egress port 15 and then retransmits the packet via the port 18) (see col. 3, lines 25-30, network – layer routing table);

A second component (figure 1, forwarding element 25) comprising the egress port (figure 1, 15); configured to receive the data packet (see col. 4, lines 30-32, the egress port removes the VLAN tag and broadcasts the ARP packet to the external subnetwork to which the port connects); and

An intermediate component (figure 1, forwarding element 26) bridging the first component (figure 1, forwarding element 25) and the second component (figure 1, forwarding element 27) to forward the data packet based on the hardware address of the egress port (see col. 2, lines 58-65, forwarding element 25 attaches a data-layer header identifying the VLAN for the egress port 15 and then retransmits the packet via port 18. Forwarding element 26 receives the packet and retransmits the packet only to the port 20 in response to reading the tag for the VLAN corresponding to the external port 15. Forwarding element 27 receives the packet and retransmits the packet only via the port 15 in response to reading the tag for the VLAN corresponding to the port 15) (see col. 3, lines 25-30, the control module 50 regularly transmits updated versions of the network-layer routing table to each forwarding element 24-27, which store the table in an internal storage device 52. From the routing table 48 and the network-layer packet destination, the forwarding elements 24-27 can determine the next-hop subnetworks A, B, C for received data packets);

to send an Address Resolution Protocol (ARP) request for a hardware address (see figure 1, data-layer address) of an egress port by which the data packet is to leave a networking router architecture to reach the receiver (53) , to receive a response to the ARP request that includes the hardware address (data-layer address) of the egress port

(figure 1, egress ports 12, 13) (see col. 4, lines 35-43, Each host on the net-hop subnetwork receives the ARP packet. The ARP packet indicates a network-layer destination address for which a data-layer address (MAC address) is requested and a data-layer address of the originator of the ARP request. Each host determines whether its own network-level address matches the address provided by the ARP packet. If a host detects a match, the host sends a directed response message back to the ARP originator of the ARP request. The response message identifies the data-layer address of the responding host device).

8. In the claim 2, Putzolu et al. disclose intermediate components (figure 4, 58, 57) bridging the first component (component connecting to subnetwork D) and the second component (component connecting to subnetwork H) (see figure 1, figure 4).

9. In the claim 3, Putzolu et al. disclose wherein the first component (figure 1, component 27) is configured to receive a packet from a first host (figure 1, 53 in subnetwork C) and the second component (figure 1, component 25, 24) is configured to deliver the packet to a second host (figure 1, 51 in subnetwork A) (see col. 1, lines 35-40, to function as a logical router, the device 10 routes data packets among the configurable communications subnetworks A, B, C that connect to its external ports 12-15).

10. In the claim 4, Putzolu et al. disclose the routing table (see col. 3, lines 32-33, the table) used to identify the egress port (figure 3C, col. 3, lines 32-33) is computed by identifying a port that leads to the second host (51 in subnetwork A).

11. In the claim 6, Putzolu et al. disclose the first component is configured to encapsulate the packet with the hardware address (the data layer address) of the second component and to forward the encapsulate data packet through the intermediate component (intermediate element 26) to the second component (the second element 24, 25) (see col. 4, lines 50-51, the forwarding element for the ingress port for the data packet receives the response and writes (encapsulate) the data-layer address (the hardware address) obtained from the response in the data-layer header of the data packet to be forwarded).

12. In the claim 7, Putzolu discloses the intermediate component (the forwarding element 26) acts as a transparent bridge to forward the ARP request and the encapsulated data packet (see col. 4, lines 45-47, an ingress port that connects to the external subnetwork on which the responding host is located receives the response message. The ingress port attaches (encapsulate) an appropriate VLAN tag and sends the response back to the forwarding element that made the ARP request).

13. In the claim 8, Putzolu discloses wherein the second component (figure 1, col. 2, lines 57-65, forwarding element 27) is configured to route the encapsulated data packet received through the intermediate component (figure 1, col. 2, lines 57-65, forwarding element 26) to a second host (figure 1, subnetwork C).

14. In the claim 9, Putzolu discloses wherein the first component (figure 1, col. 2, lines 57-65, forwarding element 25), the intermediate component (figure 1, col. 2, lines 57-65, forwarding element 26), and the second component (figure 1, col. 2, lines 57-65, the forwarding element 27) are connected through a network medium.

15. In the claim 10, Putzolu discloses wherein the network medium comprises Ethernet (see col. 2, lines 3-4).

16. In the claim 13, claim 13 is rejected the same reasons of claim 2 above.

17. In the claim 14, Putzolu discloses broadcasting the request for the address of the egress component (see col. 4, lines 25-32) from intermediate component (see figure 1, forwarding element 26).

18. In the claim 17, Putzolu discloses routing the data packet from egress component to the receiver (see col. 4, lines 45-50).

19. In the claim 20, Putzolu discloses receive the data in a packet from the sender (figure 1, forwarding element 25); and broadcast (see col. 4, lines 25-30) the request for the MAC address (data layer address) from the intermediate component (see col. 2, lines 57-65, col. 4, lines 25-30).

20. In the claim 23, Putzolu discloses route the packet from the egress component (figure 1, forwarding element 27) to the receiver (figure 1, subnetwork C).

21. In the claim 24, Putzolu discloses wherein the apparatus comprises a modularized network element that includes the first component (figure 1, forwarding element 25), the second component (figure 1, forwarding element 27), and the intermediate component (figure 1, forwarding element 26). The position of the components in the network element changing based on a path of the data (see col. 2, lines 57-65).

22. In the claim 26, Putzolu discloses performing the lookup (see col. 3, lines 20-25, the routing table) to determine the path comprises performing the lookup to determine

the path in a modularized network element that includes the egress component (figure 1, forwarding element 27) and the intermediate component (figure 1, forwarding element 26), wherein the position of the component in the network changes based on the path (see col. 2, lines 57-65).

23. In the claim 28, Putzolu discloses performing the look up to determine the path in a modularized network element that includes the egress component (figure 1, forwarding element 27) and the intermediate component (figure 1, forwarding element 26), wherein the position of the components in the network element changes based on the path (see col. 2, lines 57-65).

Claim Rejections - 35 USC § 102

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

25. Claims 1, 12, 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Dobbins et al. (U.S.Patent 6,249,820 B1).

In the claim 1, Dobbins et al. disclose a first component (figure 7, a forwarding engine 112) configured to perform a route look-up identify a proxy egress port (figure 7, interface object) by which a data packet is to leave the first component (a forwarding engine 115, 118), to send an address resolution protocol (ARP) request (see col. 11,

lines 57-60, col. 12, lines 11-15) for a hardware address of an egress port (figure 7, router interface object 111, 114, 117) by which the data packet is to leave a networking router architecture (col. 9, line 61, router architecture) to reach the receiver (figure 7, router interface 114), to receive a response to the ARP request that include the hardware address (col. 12, lines 11-15, physical address) of the egress port (figure 7, router interface 114), and to label the data packet with information identifying the hardware address (the physical address of the destination host) of the egress port;

Second component (figure 7, forwarding engine 115) comprising the egress port (figure 7, interface object 114) and configured to receive the data packet (see col. 11, lines 50-55);

An intermediate component (figure 7, forwarding engine 118) bridging the first component (figure 7, forwarding engine 112) and the second component (figure 7, forwarding engine 115) to forward the data packet based on the hardware address of the egress port (see col. 11, lines 40-45).

26. In the claim 12, Dobbins et al. disclose a first component (figure 7, a forwarding engine 112) configured to perform a route look-up identify a proxy egress port (figure 7, interface object) by which a data packet is to leave the first component (a forwarding engine 115, 118), to send an address resolution protocol (ARP) request (see col. 11, lines 57-60, col. 12, lines 11-15) for a hardware address of an egress port (figure 7, router interface object 111, 114, 117) by which the data packet is to leave a networking router architecture (col. 9, line 61, router architecture) to reach the receiver (figure 7, router interface 114), to receive a response to the ARP request that include the

hardware address (col. 12, lines 11-15, physical address) of the egress port (figure 7, router interface 114), and to label the data packet with information identifying the hardware address (the physical address of the destination host) of the egress port;

Second component (figure 7, forwarding engine 115) comprising the egress port (figure 7, interface object 114) and configured to receive the data packet (see col. 11, lines 50-55);

An intermediate component (figure 7, forwarding engine 118) bridging the first component (figure 7, forwarding engine 112) and the second component (figure 7, forwarding engine 115) to forward the data packet based on the hardware address of the egress port (see col. 11, lines 40-45).

27. In the claim 18, Dobbins et al. disclose a first component (figure 7, a forwarding engine 112) configured to perform a route look-up identify a proxy egress port (figure 7, interface object) by which a data packet is to leave the first component (a forwarding engine 115, 118), to send an address resolution protocol (ARP) request (see col. 11, lines 57-60, col. 12, lines 11-15) for a hardware address of an egress port (figure 7, router interface object 111, 114, 117) by which the data packet is to leave a networking router architecture (col. 9, line 61, router architecture) to reach the receiver (figure 7, router interface 114), to receive a response to the ARP request that include the hardware address (col. 12, lines 11-15, physical address) of the egress port (figure 7, router interface 114), and to label the data packet with information identifying the hardware address (the physical address of the destination host) of the egress port;

Second component (figure 7, forwarding engine 115) comprising the egress port (figure 7, interface object 114) and configured to receive the data packet (see col. 11, lines 50-55);

An intermediate component (figure 7, forwarding engine 118) bridging the first component (figure 7, forwarding engine 112) and the second component (figure 7, forwarding engine 115) to forward the data packet based on the hardware address of the egress port (see col. 11, lines 40-45).

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

29. Claims 5, 15, 16, 17, 22, 23 are rejected under 35 U.S.C. 103(a) as being obvious over Dobbins et al. (U.S.Patent No. 6,249,820 B1) in view of Mauger (U.S.Patent No. 6,522,627 B1).

In the claim 5, Dobbins et al. disclose the first component (figure 7, forwarding engine 112) is configured to broadcast the ARP request (see col. 11, lines 40-45, ARP request); the second component (figure 7, forwarding engine 115) is configured to receive the ARP request and send the response (see col. 11, lines 57-61, col. 12, lines 11-15) that includes the hardware address (physical address) back to the first component (figure 7, forwarding engine 112); the intermediate component (figure 7,

forwarding engine 118) is configure to forward the ARP request (figure 7, col. 11, lines 40-45) to the second component (figure 7, forwarding engine 115).

However, Dobbins is silent to disclosing forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address.

Mauger discloses forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address (see abstract, this provides end to end connectivity without the need for individual packet routing at the intermediate network node).

Both Dobbins, and Mauger discloses end to end connectivity. Mauger recognizes forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system Dobbins with the teaching of Mauger to reply forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address in order to improve the performance of switch architecture.

30. In the claim 15, Dobbins et al. disclose forwarding the request for the address through the intermediate component (figure 7, forwarding engine 118) (see col. 11, lines 40-45); sending the reply from egress component (figure 7, forwarding engine 115) to the intermediate component (figure 7, forwarding engine 118); and forwarding the reply from the intermediate component (figure 7, forwarding engine 118) to the component that send the request for the address (col. 11, lines 40-45, col. 12, lines 11-15).

However, Dobbins is silent to disclosing forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address.

Mauger discloses forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address (see abstract, this provides end to end connectivity without the need for individual packet routing at the intermediate network node).

Both Dobbins, and Mauger discloses end to end connectivity. Mauger recognizes forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system Dobbins with the teaching of Mauger to reply forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address in order to improve the performance of switch architecture.

31. In the claim 16, Dobbins et al. disclose labeling the data with the address comprises encapsulating a data packet with a media access control (MAC) address (physical address) of the egress component (see col. 11, lines 40-45, lines 57-61, col. 12, lines 11-15); forwarding the data comprises forwarding the encapsulated data packet to the egress component (forwarding engine 115) through the intermediate component (forwarding engine 118) (col. 11, lines 40-45, lines 57-61, col. 12, lines 11-15).

However, Dobbins is silent to disclosing forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address.

Mauger discloses forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address (see abstract, this provides end to end connectivity without the need for individual packet routing at the intermediate network node).

Both Dobbins, and Mauger discloses end to end connectivity. Mauger recognizes forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system Dobbins with the teaching of Mauger to reply forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address in order to improve the performance of switch architecture.

32. In the claim 17, Dobbins et al. disclose routing the data packet from egress component (forwarding engine 115) to the receiver (forwarding engine 112) (see col. 11, lines 40-45, lines 57-61, col. 12, lines 11-15).

33. In the claim 22, Dobbins et al. disclose encapsulate a packet comprising the data with the MAC address of the second component (forwarding engine 115); and forward the encapsulated packet to the egress component through the intermediate component (forwarding engine 118).

However, Dobbins is silent to disclosing forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address.

Mauger discloses forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address (see abstract, this provides end to end connectivity without the need for individual packet routing at the intermediate network node).

Both Dobbins, and Mauger discloses end to end connectivity. Mauger recognizes forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system Dobbins with the teaching of Mauger to reply forwarding the reply from the intermediate component without looking up the routing table to the component that send the request for the address in order to improve the performance of switch architecture.

34. In the claim 23, Dobbins et al. disclose routing the data packet from egress component (forwarding engine 115) to the receiver (forwarding engine 112) (see col. 11, lines 40-45, lines 57-61, col. 12, lines 11-15).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571) 272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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02/03/07

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